

THE KIN OF GENIUS—(III)

The Size of Their Own and Their Parents' Families

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IN the July 1928 and January 1929 numbers of this REVIEW I gave an account of the relatives of two hundred men of note, with special references to the degrees of eminence to which their relatives had attained. In the present study, taking the same two hundred individuals, I propose to give some account of their fertility together with that of their parents. The original list comprised three main divisions: LEADERS OF ACTION, 75; LEADERS OF THOUGHT, 53; AND LEADERS OF ART, 72; and ranged in time from A.D. 1500 to A.D. 1900, consisting entirely of British subjects.

The two hundred may be divided into four main categories in respect of their children:

- (1) THOSE WITH MORE THAN 4 CHILDREN.
- (2) THOSE WITH FROM 1 TO 4 CHILDREN.
- (3) THOSE MARRIED, BUT WITH NO CHILDREN.
- (4) THOSE UNMARRIED.

1.—THOSE WITH MORE THAN 4 CHILDREN

These are 54 in number and consist of the following (the number of children in each case is indicated after the name):

Archbishop Parker (5), John Knox (5), John Napier (12), Edward Coke, (12), Hugh Middleton (9), Orlando Gibbons (7), Strafford (5), Pym (5), Hampden (9), Cromwell (7), Clarendon (6), Isaac Walton (10), Bunyan (6), Penn (13), Purcell (6), Marlborough (5), Defoe (5), Halley (over 4), Robert Walpole (5), Chatham (5), Fielding (5), Rodney (7), William Robertson (5), James Cook (6), Wedgwood (7), Erskine (8), Burns (5), Abercromby (7), Mrs. Siddons (6), Wilberforce (6), Raffles (5), John Herschel (12), Dundonald (6), Constable (7), O'Connell (7), Mrs. Fry (6), Peel (7), Livingstone (5), Charles Barry (7), Gladstone (8),

Darwin (10), Dickens (10), John Laurence (10), John Bright (7), George Richmond (10), Archbishop Tait (9), Joseph Hooker (8), Gilbert Scott (5), Millais (7), Matthew Arnold (5), Dufferin (7), Salisbury (7), Roberts (6), Chamberlain (6).

2.—THOSE WITH 1 TO 4 CHILDREN

These are 59 in number, and consist of the following:

Thomas More (4), Gresham (2), Burleigh (4), Walsingham (1), Raleigh (3), Edmund Spenser (4), Robert Cecil (3), Shakespeare (3), Ben Jonson (4), Beaumont (2), Vandyke (2), Milton (3), Wren (4), Dryden (3), Clive (4), James Watt (4), John Hunter (4), Arkwright (2), James Bruce (2), William Herschel (1), Burke (1), Boswell (3), Jenner (3), Romney (2), Nelson (1), Sheridan (3), Grattan (4), Wellesley (2), Wellington (2), George Canning (4), Mungo Park (4), Parry (2), John Ross (1), Malthus (2), Stratford Canning (4), Wordsworth (3), Walter Scott (4), Coleridge (3), Byron (2), Shelley (3), John Franklin (1), George Stephenson (1), Cobden (2), Thackeray (2), William Hamilton (3), Dalhousie (2), Tennyson (2), Brunel (3), Rowland Hill (4), Browning (1), Edmund Kean (1), Holman Hunt (3), Meredith (3), Huxley (4), Wolseley (1), John Seely (1), Irving (2), Cromer (3), Rayleigh (4).

3.—THOSE MARRIED, BUT WITH NO CHILDREN

These are 42 in number and consist of the following (6, it may be remarked, married widows):

Drake, Frobisher, Bacon, William Harvey, George Fox, Pepys, Addison,

John Wesley, Mansfield, Garrick, Hogarth, Warren Hastings, Charles Fox, St. Vincent, Flaxman, Castlereagh, Fanny Burney, Palmerston, Humphry Davy, Lyell, Manning, Burton, Faraday, Carlyle, Disraeli, J. S. Mill, Charlotte Brontë, Clerk-Maxwell, Lister, Galton, A. R. Wallace, Kelvin, Tyndall, Watts, Ruskin, 'George Eliot,' D. S. Rossetti, W. S. Gilbert, Lecky, H. M. Stanley, Parnell, R. L. Stevenson.

4.—THOSE UNMARRIED

These are 45 in number and consist of the following :

Wolsey, Dean Colet, Sebastian Cabot, William Tyndale, Inigo Jones, Selden, Herrick, Robert Blake, Hobbes, Locke, Robert Boyle, Newton, Swift, Handel, Pope, Hume, Adam Smith, Wolfe, Gibbon, Samuel Johnson, Gray, Gilbert White, Goldsmith, Gainsborough, Reynolds, Cowper, Horace Walpole, Pitt, Bentham, John Moore, Charles Lamb, J. M. W. Turner, Macaulay, Jane Austen, Keats, Newman, Speke, Charles Reade, Herbert Spencer, Delane, Leighton, Florence Nightingale, 'Lewis Carroll,' Sullivan, Rhodes.

The total number with children is therefore 113, and without children 87.

It may be observed with regard to categories 1 and 2, that the records are probably by no means always exact in respect of the number of children, especially in earlier times, when so many died in infancy. The probabilities are, therefore, that category 1 is really rather larger, and category 2 is really rather smaller than appears above, but the difference is not likely to be at all considerable.

With regard to categories 3 and 4 there is the question of unrecognized illegitimate offspring. Such children who were recognized have been included, but there is more than a suspicion of others, particularly in two cases in category 3. It seems probable that the total number with children was perhaps 120 in place of 113, but it is safer to base statistics on what is clearly known.

On this basis, then, rather more than three-quarters of the great men of English history in those four centuries were married, rather more than a half had children, and rather more than a quarter had what we should now consider large families.

Turning to the original divisions, we find that of the 75 Leaders of Action, 30 had more than 4 children, 21 had 4 or less, 14 were married, *s.p.*,* and 10 were unmarried—making 51 with children, and 24 without.

Of the 53 Leaders of Thought, 8 had more than 4 children, 15 had 4 or less, 15 were married, *s.p.*, and 15 were unmarried—making 23 with children, and 30 without.

Of the 72 Leaders of Art, 16 had over 4 children, 23 had 4 or less, 13 were married, *s.p.*, and 20 were unmarried—making 39 with children, and 33 without.

These results as to fecundity are very much what one might expect, the Leaders of Action being the most prolific and the Leaders of Thought the least. The proportion unmarried among the Leaders of Thought and of Art is very much the same, the Leaders of Action were 'marrying men' to a much greater extent than the others.

With regard to the question of chronology, the two hundred may be very closely divided into those who made their names before the nineteenth century, 101 in number, and those who made their names during that century, 99 in number.

Of the former division, 29 had families of over 4, and 27 of 4 or under, 16 were married, *s.p.*, and 29 were unmarried; that is, 56 had children, and 45 had none. During the nineteenth century 25 had families of over 4, and 32 had 4 or under, 26 were married, *s.p.*, and 16 were unmarried; that is, 57 had children, and 42 had none.

It will be seen that the number with children was almost exactly the same in the two periods, as is also the proportion, though there were rather more large families in the earlier. With regard, however, to categories 3 and 4, there was a much larger proportion unmarried in the earlier

* *s.p.* = *sine prole* = without issue.

period, and a much larger proportion married without children in the latter. I can see no particular reason for the larger number unmarried in earlier times (only Colet, Wolsey, and Tyndale were priests), but the proportion in later days married without children seems to have been some forecast of still later times. All but a very few, however, were of mature age before the movement for limitation of families definitely began.

Returning to the total number of those known to have left children, 113, it may be remarked that in several instances the descendants later died out. Well-known cases are Shakespeare and Milton, and among others may be mentioned Ben Jonson, Dryden, James Cook, Burke, and Edmund Kean. There are undoubtedly still others, and, speaking generally, it may be said that descendants only exist at the present day of about one half of the two hundred, even making allowance for unknown illegitimate progeny. The exact number of lines which failed would, however, form an interesting subject for further research.

THEIR BROTHERS AND SISTERS

The second part of this inquiry relates to the size of the families from which the two hundred sprang. In this respect reliable data are more difficult to obtain, and in eight cases, all in the earlier period, I have been unable to ascertain even an approximation to the extent of the families of the parents. The data which follow relate, therefore, to the remaining 192. Owing, as previously stated, to the large number who died in infancy, and of whom frequently no record remains, it is probable that the average size of the families was really somewhat larger than is here given. This infant mortality at times reached appalling proportions; for example, Dean Colet is stated to have been the only one of a family of 22 to reach maturity, and the poet Gray the only one of a family of 12.

For the purposes of this section I have divided the families into three categories:

- (1) those with over 7 children,
- (2) those with between 5 and 7 children,
- (3) those with under 5 children,

and these divide the 192 into three fairly equal numbers, 59 belonging to category 1, the large families; 65 to category 2, the medium families; and 68 to category 3, the small families.

Of the Leaders of Action, 25 sprang from the large, 25 from the medium, and 22 from the small; of the Leaders of Thought, 19 came from the large, 16 from the medium, and 16 from the small; and of the Leaders of Art, 17 from the large, 24 from the medium, and 28 from the small. It will be seen that while the Leaders of Action and of Thought are very evenly divided between the three groups, there was a tendency among the Leaders of Art to belong to the smaller families.

Chronologically, of those springing from large families 27 made their names before and 32 during the nineteenth century; of those from small families, 36 come in the earlier period and 32 in the late. The medium-sized families contributed 30 before and 35 after the beginning of the nineteenth century. The eight concerning whose families no reliable data can be found all fall within the earlier period, and on the assumption that these belonged, on the average, to the medium families, the correspondence between the two divisions of time is practically identical. Up to any rate the middle of the nineteenth century, the average size of the families from which notable men have sprung remained absolutely constant.

THE ONLY CHILDREN

Of the whole two hundred, 15 were only children, viz. Ben Jonson, Swift, Pope, Warren Hastings, Adam Smith, George Canning, John Herschell, J. M. W. Turner, Thackeray, Clerk-Maxwell, Ruskin, Meredith, Dufferin, Irving, and R. L. Stevenson. Five others, viz. Newton, James Bruce, Castlereagh, Byron, and Lecky, were the only children of their parents, but had half brothers and half sisters. (Half-sibs, it

TABLE 1.—SUMMARY OF COMPARATIVE FERTILITY

Leaders	Period	Total No.	Sterile						Fertile			Av. Size of Family	
			Married No.	%	Unm'd No.	%	T'tl	%	No.	%	No. of Children	Fertile Only	Fertile & Sterile C'mb'd.
1. Action ...	Before 1800	37	7	19	6	16	13	35	24	65	123	5·13	3·32
	After 1800	38	7	18	4	11	11	29	27	71	128	4·74	3·37
2. Thought ...	Before 1800	26	3	12	11	42	14	54	12	46	62	5·17	2·38
	After 1800	27	12	45	4	15	16	59	11	41	53	4·82	1·96
3. Art ...	Before 1800	38	6	16	12	32	18	48	20	52	89	4·45	2·34
	After 1800	34	7	21	8	24	15	44	19	66	80	4·21	2·35
4. All Leaders ...	Before 1800	101	16	16	29	29	45	45	56	56	274	4·89	2·71
	After 1800	99	26	26	16	16	42	42	57	57	261	4·58	2·64
5. Families ¹ of all Leaders	Before 1800 ²	93	—	—	—	—	—	—	93	100	568	6·11	—
	After 1800	99	—	—	—	—	—	—	99	100	599	6·05	—
6. General Population ...	1775-99 ³	—	—	—	—	—	—	—	—	—	—	—	3·65
	1800-34 ³	—	—	—	—	—	—	—	—	—	—	—	3·7
	Circa 1830 ⁴	—	—	—	—	—	—	—	—	—	—	—	4·2
	1875-84	—	—	—	—	—	—	—	—	—	—	—	4·5

¹ i.e., all the children of the Leaders' parents.³ Baptism rate per marriage.² Omitting those given as "uncertain" in Table 3.⁴ Estimated per marriage.

should be said, have been included throughout, since they would certainly not be separately distinguished in general population statistics.) The only children of their parents, 20 all told, are exactly one-tenth of the whole.

An interesting question remains as to the effect of the smaller families of the present day on the production of great men. Families of over four are now, in the upper social classes at all events, becoming extremely rare, and it will be observed that out of 192 men of note, 124 belonged to such families. The actual position in seniority in each family of its most prominent members is in most cases so difficult to ascertain with precision that I have not attempted a complete analysis in this respect, but there can be no doubt that on the average as many belonged to the elder as to the younger half.

In the cases of the 124, the average size of the families may be taken as eight, and one-half, viz. 62, may be estimated as coming in the first four in the family. Adding these to the 68 who belonged to small families, we may consider that 130 of the 192 might have been born in an era of small families, while 62 would not, leaving us in any case with some two-thirds of our great men, though less, of course, if families were further reduced to an average of 1 or 2.

This is hardly, however, the whole story so far as the effect on national life is concerned. With regard to the two categories, Leaders of Action and Leaders of Thought, if the actual great men had never appeared, the better stocks would certainly have produced others capable of taking their place; indeed there were no doubt in existence such men who just did not get their chance.

The case is rather different with regard to Leaders of Art, to whom, if to any, the somewhat misleading term 'genius' is best applied. Here we cannot feel at all so certain that similar men would have arisen, but it is interesting in this connection to note how the Leaders of Art had a tendency to appear in the smaller families.

On the whole, it would seem that provided the better stocks do not practically disappear, we may still feel assured of a due

supply of great organizers and great scientists, but we may, and probably shall, find a certain diminution in the numbers of 'Leaders of Art.'

In conclusion, it may be remarked that if only about one-half of the great men of English history have left posterity, the proportion of descendants from their parents must be far greater, and probably in every single instance descendants are in existence of their grandparents.



THE GENERAL POPULATION

By M. C. Buer, D.Sc.

IN comparing Mr. Gun's very interesting figures with those available for the general population, the first difficulty which is encountered is the extreme paucity of vital statistics before the nineteenth century. Though, perhaps, generally known to the readers of the *EUGENICS REVIEW*, it may be well to recall the fact that the first effective census in this country was in 1811 and that the civil registration of births and deaths was only introduced in 1837. The fact that before 1837 the only birth-rate figures available for the general population are those of a defective registration of *baptism*, is in this particular instance not important, as Mr. Gun's figures are ultimately, doubtless, derived from a similar source. We are, in fact, up to 1837 comparing not births, but two sets of registered baptisms; and neither set is comparable with modern birth-rate figures without correction. For the total population the correction from registered baptisms to births is usually taken to be an increase of at least one-sixth and probably of one-fifth. There is, naturally, no data for making the correction in regard to Mr. Gun's families, but the probability is that, owing to their social status, the correc-

tion would be lower, rather than higher, than that for the general population.

Mr. Griffith¹ calculated the baptismal rate per marriage (fertile and sterile combined) for several periods, none of which exactly correspond to Mr. Gun's; but, speaking roughly, Mr. Griffith's figures for baptisms per marriage are—from 1775 to 1800, 3.6; and from 1800 to the decade 1830-40, about 3.7. There are no figures for the general population upon which any reliance can be placed before the second half of the eighteenth century. Before 1754 the marriage register was most unreliable, while in the decade 1830-40, the introduction of civil registration caused confusion in the figures. After that decade we pass from a baptism rate to a birth rate, but registration was not fully effective until 1876. In the decade 1875-84 the birth rate per marriage was 4.5, and after that decade it began to drop. Farr had calculated the fertility rate per marriage in 1830 as 4.2, but the apparent rise in later years may have been due to an underestimate by Farr of the defects of the baptismal register.

It may be interesting to give the number of baptisms (illegitimate excluded) per mar-